# Empirical Research in Support of Incentive Rate-Setting: 2016 Benchmarking Update

## **Report to the Ontario Energy Board**

July 2017



**Pacific Economics Group Research, LLC** 

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## 1. Introduction

In 2013, as part of the IRM-4 proceeding EB-2010-0379, the Ontario Energy Board (OEB) issued a report titled "Rate Setting Parameters and Benchmarking under the Renewed Regulatory Framework for Ontario's Electricity Distributors"<sup>1</sup> (Board Report) in which it set forth the framework for setting rate adjustment formulas for local distribution companies (LDCs or "distributors"). The Board Report provides the OEB's final determination on its policies and approaches to the distributor rate adjustment parameters and the benchmarking of electricity distributor total cost performance for the 2014 to 2018 rate-year period. This 2016 Benchmarking Update for distributors determines their 2017 stretch factor assignments in relation to the 2018 rate year.

According to the Board Report, rates will be indexed by a formula "which is used to adjust the distribution rates to reflect expected growth in the distributors' input prices (the inflation factor) less allowance for appropriate rates of productivity and efficiency gains (the X-factor)."<sup>2</sup> The productivity part of the X-Factor is the same for all LDCs. The efficiency gains part of the X-Factor is called the stretch factor and can vary by company. This stretch factor reflects the potential for incremental productivity gains by a given LDC under incentive regulation (i.e., incentive rate mechanism or IRM) which in turn depends on an individual distributor's level of cost efficiency.

These stretch factor assignments are based on the results of a statistical cost benchmarking study designed to make inferences on individual distributors' cost efficiency. An econometric model is used to predict the level of cost associated with each distributor's operating conditions. Distributors that had actual cost that was lower than that predicted by the model were assigned lower stretch factors than those that did not. The October 18, 2013 report by Pacific Economics Group (PEG) titled "Productivity and Benchmarking Research in Support of Incentive Rate Setting in Ontario" describes the model used to produce the benchmarking results. The work was subsequently updated to include 2013 data in July of 2014<sup>3</sup>, 2014 data in July of

<sup>&</sup>lt;sup>3</sup> "Empirical work in Support of Incentive Rate Setting: 2013 Benchmarking Update".



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<sup>&</sup>lt;sup>1</sup> Issued on November 21, 2013 and corrected on December 4, 2013.

<sup>&</sup>lt;sup>2</sup> Board Report, page 5.

2015 and 2015 data in July of 2016. This report presents updated benchmarking results and associated stretch factors that include 2016 data for use in the 2018 rate setting process.

Section 2 of this report discusses the methodology used for the 2016 update. Section 3 discusses the data used. Section 4 presents the benchmarking results and updated stretch factors. Section 5 discusses additional resources available to distributors to validate the results contained in this report.

## 2. Benchmarking Methodology

The model used to determine the cost efficiency of distributors is based on econometrics. Distributor cost in this model is estimated as a function of business conditions faced by each distributor. These business conditions include the number of customers served and the price of inputs such as labor and capital. The parameters of this model establish the relationship between each business condition and distributor cost. These parameters were estimated using Ontario LDC data from 2002-2012.

The model can make a prediction of each distributor's cost given its business conditions by multiplying the company's business condition variables by the model parameters and summing the results<sup>4</sup>. The distributor's actual cost is then compared to that predicted by the model. The percentage difference between actual and predicted cost is the measure of cost performance. Companies with larger negative differences between actual and predicted costs are considered to be better cost performers and therefore eligible for lower stretch factors. A detailed description of the econometric model including estimation technique and other technical details are contained in sections 6 and A2.1 of the PEG report.

The econometric model used to obtain the updated stretch factors is identical to the model described in the PEG report. The OEB intentionally decided not to update the parameters of the

<sup>&</sup>lt;sup>4</sup> The table of parameters published in the PEG report was for the full sample. When making predictions of cost for each company, the econometric program estimated the model without including the subject of benchmarking in the sample. Therefore, there exist 68 different sets of parameters which are very similar to each other. For ease of presentation, the PEG report did not present the parameters specific to each distributor. These company-specific parameters are necessary for the 2013 calculations and are contained within the working papers associated with this report.



econometric model to include future data. The goal was to establish a fixed benchmark that would allow companies a fair opportunity to demonstrate improved cost performance and earn a lower stretch factor. The parameters from the previous model were combined with each company's data – including 2013-2016 data - to produce 2016 predicted cost. The rationale for this decision is discussed in the Board Report and in a memorandum by PEG that also makes some corrections to the 2012 results.<sup>5</sup> The PEG memorandum contains the corrected final results of the 2010-2012 benchmarking model used in this update. The tables from the 2014 report updating the benchmarking results also required minor changes to make them consistent with the final calculations. The final results are reflected in this report.

In order to apply the 2016 values to the model parameters, the data must be transformed to be consistent with how the data were specified for the estimated econometric model. One example of a transformation is that many of the explanatory variables were expressed as logarithms prior to the model being estimated. The PEG report describes the details of the estimation process in section A2.1. The spreadsheet model and associated documentation discussed in section 5 contain the calculations leading to the cost benchmarking results.

The purpose of the benchmarking work is to evaluate the total cost incurred by each distributor. Table 1 shows the formulas used to calculate the measure of total cost used in PEG's benchmarking analysis. As described in the PEG benchmarking report, adjustments were undertaken with the purpose of standardizing cost in order to facilitate more accurate cost comparisons among distributors. These adjustments included the treatment of high voltage and low voltage costs.

The variables used to explain total cost are the same as in the previous PEG report. They include outputs such as customers, kWh deliveries, and capacity. Prices for capital and OM&A along with other business conditions such as customer growth and average length of lines are also included. A complete discussion of the explanatory variables can be found in section 6 of the PEG report and the documents discussed in section 5. The explanatory variables are used to explain the level of cost incurred by each LDC. Cost that is not explained by the variables is deemed to be due to management performance.

<sup>&</sup>lt;sup>5</sup> Available on the OEB website in the file "PEG\_Memorandum\_OEB on\_corrections\_20131220.pdf"+



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## 3. Benchmarking Data

The source of the cost and output data used in the calculations is from the distributors as reported in the reporting and record-keeping requirements (RRR) filings. The study assumes that the data as reported by the distributors conforms to accounting policies and procedures described in the Accounting Procedures Handbook and other instructions contained within the RRR filing system. It is also assumed that the LDCs have taken ownership of the data provided to the OEB and significant revisions are not anticipated.<sup>6</sup> On March 31, 2015, the OEB established new requirement for certification of the electricity distributors' RRRs. To underscore the importance that the OEB places on the accuracy and integrity of distributor reporting, particularly in the context of the new performance based regulatory framework, the OEB required that any RRR filing with the OEB be certified by an executive signing officer of the company (e.g., Chief Executive Officer, Chief Financial Officer). The new executive certification was required for both quarterly and annual RRR filings.

Data sources apart from the RRR are related to input prices. OEB-approved rates of return were obtained from OEB Staff. The source for other input price data was Statistics Canada. The input price indexes used were the same as those used in PEG's original study with one exception. Statistics Canada no longer calculates the Electric Utility Construction Price Index (EUCPI). The growth in the GDPIPI (FDD) was used to escalate the EUCPI values used the calculations.

The update was done in the same manner as the original work and the previous update with a few exceptions. The first is that the OEB has improved the quality of the guidance given to distributors related to capital additions data. As a result, improved data are available for 2013-2016. PEG has accordingly relied upon these newly-available capital additions data instead of

<sup>&</sup>lt;sup>6</sup> The Ontario Energy Board (OEB) released the Report of the Board on Scorecard (EB-2010-0379) on March 5, 2014 (the "Scorecard Report") states that: 'While the Board will create consistent Scorecard reports for distributors, ownership of the data and Scorecard resides with the distributor.'



inferring these data from changes in gross plant<sup>7</sup>. The second exception is related to the treatment of deferred smart meter OM&A expenses. In the original PEG report, an adjustment was made for the estimated amount of amortization that was included in the reported OM&A expenses as a result of clearing amounts from account 1556. In 2014, OEB staff had advised that due to improved reporting requirements, this adjustment is no longer necessary. A recent survey of LDC disposition of account 1556 amounts has confirmed this.

The acquisition of Haldimand and Woodstock Hydro Services by Hydro One Networks and the merger of Cambridge and Brant County into Energy Plus were other issues that required special treatment for 2016. Where required, previous values for capital quantity and business conditions were aggregated for use with the 2016 data for the combined company. Previous benchmarking results for 2013-2015 were combined for the distributors. This work was necessary to calculate 2014-2016 average cost performance for the combined company.

This report also addresses the impact of data revisions by LDCs. As part of its procedures to improve data quality, OEB staff invited distributors to submit corrections to previously provided data. It was determined that already established benchmarking results for prior years would not be modified as a result of the new data. However, any revised data used by the model have been incorporated into the databases. As a result, the updated work for the current year's benchmarking study may show modestly different results for 2015 performance. The revised 2015 results are presented in this report only for information purposes to show the impact of the data changes, but were not used to calculate the new 2014-2016 average cost performance used to determine the 2017 stretch factors.

<sup>7</sup> This improvement in data quality also extends to the collection of smart meter capital additions. The previous study estimated capital additions for distribution capital exclusive of meters for the period 2006-2012 in order to be able to isolate the accounting treatment of smart meters. The capital expenditures on smart meters were gathered for each company via a supplemental data request. These capital expenditures were then used as a proxy for capital additions and added to the total. A recent survey of the composition of the reported gross capital additions has revealed that some distributors have included amounts cleared from account 1555. The capital additions to avoid double counting.



Several tables are included at the end of this report. Table 1 describes the calculation of total cost. Table 2 shows each distributor's growth in total cost from 2015 to 2016. Tables 3 (A) presents the 2016 benchmarking results and a comparison to prior years' results. Table 3 (B) summarizes the impact of data revisions discussed above. Table 4 presents average cost performance and associated stretch factors. Table 5 presents the companies assigned to each cohort.

As can be seen on Table 2, which shows the total cost performance of the distributors, the average cost growth was 2.52% from 2015-2016 and median cost growth was higher at 3.31%. OM&A cost grew by 3.23% on average while capital cost grew by 1.85%. The overall average growth in cost was lower than experienced from 2014-2015 which was 3.88%.

The econometric model estimates LDCs' costs as a function of distributor output, input price growth, and other business condition variables beyond management control. It will also produce a prediction of the level of cost consistent with these business conditions and thus "explain" some of the observed cost level. As described in the PEG benchmarking report, changes not accounted for by these factors are deemed to be due to management performance. The parameter estimates measure the cost impact of the different business conditions and are presented on Table 16 of the PEG benchmarking report.

The first of the cost drivers is output quantity. The model uses three measures for the quantity of distributor output. The first is the number of customers served and the second is kWh delivered. The third is a proxy for the capacity of the distribution system. The capacity variable is described in the PEG report and is equal to the largest peak load experienced as of the current year of data. For example, the 2012 value for the capacity variable is equal to largest reported system summer or winter kW in all the years 2002-2012. Therefore, for 2013, this capacity variable only increased if the distributor's kW demand in that year exceeded kW demand in every year between 2002 and 2012. Of the three output variables, the model estimates that the number of customers has the largest impact on cost, followed by the system capacity variable. The kWh delivered was the least important of the output variables. For the average company, the number of customers was found to be a more important cost driver than the other two combined. For each 1% change in number of customers, cost was estimated to change by 0.44%.



The second group of cost drivers were the input prices for capital and OM&A. For the average company, the cost impact of changes in the capital price was found to be almost twice as important as that for OM&A. For every 1% change in capital price, the impact on total cost was about 0.63%. The corresponding impact for changes in the OM&A price was 0.37%. The relevant indexes were updated to include 2016 data. For the OM&A price, the growth in average weekly earnings and that for the GDP implicit price index for final domestic demand ("GDPIPI (FDD)") were calculated. The 2016 growth in the OM&A price index is calculated as 70% times average weekly earnings growth plus 30% times GDPIPI (FDD) growth. The 2015 values for the OM&A price index from the previous report were escalated by the growth that occurred in 2016.

The capital price calculation is based upon an asset price index, an economic depreciation rate, and a rate of return. The asset price index was the Electric Utility Construction Price Index as calculated by Statistics Canada. As this index is no longer available, the previous values are escalated by an alternate index. The index chosen was the GDPIPI (FDD) which is the same index used to represent all non-labour price inflation in the Board-approved inflation measure formula<sup>8</sup>. The depreciation rate is fixed at 4.59% consistent with the previous work. The rate of return is a weighted average of the rates for return on equity, long-term debt, and short-term debt as approved by the OEB. The capital price used to calculate total cost is also used as an explanatory variable. Therefore, any changes in the rate of return that affect the cost calculation will also affect the price calculation which will in turn "explain" the observed changes in cost.

The last group of cost drivers consists of other business condition variables. The first was the percentage of customers added over the last ten years. The second was the average km of distribution line. In each case these variables were updated to include 2016 data. For each 1% change in line length, total cost was estimated to increase by 0.29%. The model also contains a time trend that accounts for changes in cost over time that are not accounted for by the other cost drivers. This variable estimates that cost should rise by 1.7% per year for reasons not identified by other variables in the model.

<sup>&</sup>lt;sup>8</sup> The weight given to the non-labour index in the inflation formula includes capital cost.



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## 4. Benchmarking Results and Updated Stretch Factors

Table 3 (A) presents a summary of benchmarking results for each distributor from 2011-2016. The updated average cost performance is calculated from the 2014-2016 values. This updated average cost performance is used to assign updated stretch factors to distributors. The last column presents the difference between the updated average cost performance and that calculated previously. All but six distributors had average cost performance that changed by less than 5%. The average actual cost performance of the 68 LDCs benchmarked was better than predicted by the model by 0.18% in 2013, 2.57% in 2014, 2.53% in 2015 and 2.82% in 2016. Average 2014-2016 cost performance for the industry improved by 0.88% relative to 2013-2015 levels. This improvement in average performance is due to the overall cost performance improvement from the average.

As part of its procedures to improve data quality, OEB staff invited distributors to submit corrections to previously provided data. OEB Staff reviewed and considered the data corrections requests and PEG evaluated the data provided in response to the data request to identify any warranted corrections. The revised data were incorporated into the databases and the 2015 results were recalculated to demonstrate the impact. Table 3 (B) shows the impact of LDC data revisions on 2015 cost performance for those companies that had approved changes to data. All revisions to 2015 results were less than 2%. Not all of the data reported by distributors and maintained in the spreadsheet model are used in the calculations. Several companies the submitted data changes showed no change in 2015 results for this and other reasons.<sup>9</sup>

Updated stretch factors are assigned based on a three-year average of actual less predicted cost over the 2014-2016 period. As discussed in the Board Report, distributors that averaged 25% or more below cost received the lowest stretch factor of 0%. Those that averaged between 10% and 25% below cost received a stretch factor of 0.15%. Those within 10% of predicted cost received a stretch factor of 0.30%. Those distributors that had cost in excess of 10% to 25% of

<sup>&</sup>lt;sup>9</sup> Other reasons why results did not change include data changes for a year prior to 2015 and a revision to peak demand that does not exceed previous peaks.



that predicted received a stretch factor of 0.45%. Any distributors that had cost in excess of 25% were assigned the highest stretch factor of 0.60%.

Table 4 presents a summary of the current and previous years' cost performance results and corresponding stretch factors. The assigned stretch factor for most companies was not affected by the 2016 update. A total of 6 companies have been assigned different stretch factors. Of these, 3 now have lower stretch factors and 3 have higher stretch factors. Table 5 presents the updated stretch factor assignments in the format of Appendix D of the Board report.

### 5. Validation and Other Supporting Documents

As part of their reporting requirements, distributors are asked to validate the numbers contained in their scorecard. Many distributors had difficulty understanding and validating the results contained in previous benchmarking reports. As part of its process improvement initiative, OEB Staff commissioned additional work to make these calculations more accessible and transparent. In collaboration with a committee of industry members, the working papers and documentation were upgraded with the purpose of making them a tool to assist LDCs in validating their benchmarking results. The result was an enhanced benchmarking Spreadsheet Model and a User's Guide which are available on the OEB's website<sup>10</sup>. A webinar and training session were also held to assist the industry in using these new tools.

This spreadsheet model was updated to include 2016 data and produces the updated benchmarking results contained in this report. The updated Spreadsheet Model builds on the previous version by adding additional worksheets related to the 2016 calculations. The format of the additional sheets is identical to those provided earlier and the User's Guide will be applicable to the new worksheets. The guide is intended to serve as a tool for distributors to the end of the IRM 4 term.

<sup>&</sup>lt;sup>10</sup> The spreadsheet model and users guide are available in the <u>Measuring Performance of Electricity</u> <u>Distributors</u> section of the OEB's website



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## Calculation of 2016 Total Cost

Variable		Reference	Formula	Source
Total Cost			= OM&A + Capital Cost	Formula
OM&A			= A+B+C+D+E+F+G-I+J	Formula
2016	Operation	А		RRR
2016	Maintenance	В		RRR
2016	Billing and Collection	С		RRR
2016	Community Relations	D		RRR
2016	Administrative and General Expenses	E		RRR
2016	Insurance Expense	F		RRR
2016	Advertising Expenses	G		RRR
Adjustments to	OM&A			
2016	Smart Meter	Н		Data Request
2016	HV Adjustment	1		RRR
2016	LV Adjustment	J		Hydro One Networks
Capital				
2015	Asset Price Index	К		PEG Report Working Papers
2015	Capital Price	L		PEG Report Working Papers
2015	Capital Quantity	М		PEG Report Working Papers
2015	Capital cost	Ν		PEG Report Working Papers
2016	Asset Price Index	0	=K x (GDPPI-FDD 2016 / GDPPI-FDD 2015)	Formula, Statistics Canada
2016	Capital Additions	Р		RRR
2016	HV Capital Additions	Q		RRR
2016	Quantity of Capital Additions	R	=(P-Q) / O	Formula
	Depreciation Rate	S	Fixed at 4.59% for All Years	PEG Report
2016	Capital Quantity	Т	= M - S x M + R	Formula
2016	Rate of Return	U		OEB Staff
2016	Capital Price	V	=U x K + S x O	Formula
2016	Capital Cost	W	= V x T	Formula

### Total Cost by Distributor: 2015 vs. 2016

Percent   Percent   Percent   Percent   Percent     2015   2016   Change   2015   2016   Change     Algoma Power Inc.   11,595,831   11,621,713   0.2%   520,642   532,771   2.3%   15465,1909   24,888,602   1.2%     Alkokan Hydro Inc.   11,955,831   11,621,713   0.2%   532,771   2.3%   1546,519   1,596,521   3.2%     Buewater Power Distribution Corporation   11,951,307   12,570,866   5.1%   11,200,809   11,28,871   0.7%   20,036,961   20,816,620   2.38,998   2.1%   40,964,591   40,997,606   0.1%     Canadian Nigara Power Inc.   17,188,901   16,656,800   -2.3%   13,164,599   13,761,893   40,964,591   40,997,606   0.1%     Canadian Nigara Power Inc.   9,169,775   9,308,936   1.5%   13,164,599   18,7131   3.4%   22,314,375   22,901,372   2.93   44,954,140,994   40,904,914   40,903,905   4.11%     Colarged were Inc.   9,169,775   9,308,936   1.5%<
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Brantford Power Inc. 8,836,881 9,689,538 9.2% 11,200,080 11,126,871 0.7% 20,036,961 20,816,410 3.8%   Burlington Hydro Inc. 17,198,232 17,539,020 2.0% 23,858,572 23,902,572 0.2% 41,056,804 41,414,151 0.9%   Canadian Niagara Power Inc. 9,169,775 9,308,936 1.5% 13,164,599 3.4% 22,334,375 22,390,334 2.6%   Canadian Niagara Power Inc. 9,169,775 9,308,936 1.5% 13,164,599 3.4% 22,334,375 22,390,334 2.6%   Construction Under Vide Cutd. 2,106,952 2,176,403 3.2% 2,309,342 2,426,692 5.0% 4,416,294 4,603,095 4.1%   Colus PowerStream Corp. 4,712,043 4,888,199 3.7% 4,045,440 4,241,312 4.7% 8,757,783 9,9125,143 4.2%   Colus PowerStream Corp. 4,712,043 4,888,199 3.7% 4,045,440 4,241,312 4.7% 8,77,77 159,777 159,713,785 3.3%   Enersource Hydro Mississauga Inc. 52,655,912 2,512,517 4.2,48 4,99,9151,492
Burlington Hydro Inc.17,198,23217,039,0202.0%23,858,5720.7%12,050,7520.2%14,441,5910.9%Energy Plus17,138,50116,658,068-2.8%23,826,09024,338,9982.1%40,964,59140,997,6060.1%Canadian Niagara Power Inc.9,169,7759,308,9361.5%13,164,59913,621,3983.4%22,334,37522,930,3342.6%Centre Wellington Hydro Itd.2,106,5522,176,4033.2%2,309,3422,426,6925.0%4,415,2944,603,0954.1%Collus PowerStream Corp.4,712,0434,888,1993.7%4,045,4404,241,3124.7%8,757,4839,129,5114.2%Collus PowerStream Corp.60,562,2912,512,511-2.9%2,418,7202,391,991-1.1%5,004,6324,904,503-2.0%Enersource Hydro Mississauga Inc.8,867,6299,372,2305.5%13,451,01813,776,4772.4%22,318,64723,149,1773.3%Entregrus Powerlines Inc.8,867,6299,372,2305.5%13,451,01813,776,4772.4%23,148,1773.3%Entregrus Powerlines Corporation5,682,2166,058,0236,446,2206,551,8732.2%12,088,44612,009,8964.2%Espanola Regional Hydro Distribution Corporation1,459,2691.7%73,0417739,01713,392,05615,860,0922.0%Fort Frances Power Incorporated6,658,0066,906,1913.7%8,881,5548,953,9010.8%15,539,56
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Expanola Regional Hydro Distribution Corporation 1,434,729 1,459,269 1.7% 730,417 739,076 1.2% 2,165,145 2,198,345 1.5%   Espanola Regional Hydro Distribution Corporation 6,658,006 6,906,191 3.7% 8,881,554 8,953,901 0.8% 15,539,560 15,86,092 2.0%   Festival Hydro Inc. 5,095,654 5,538,914 8.3% 8,043,549 7,895,137 -1.9% 13,139,203 13,434,051 2.2%   Fort Frances Power Corporation 1,575,629 1,693,058 7.2% 885,390 882,485 -0.3% 2,461,019 2,575,543 4.5%   Greater Sudbury Hydro Inc. 13,121,322 14,059,731 6.9% 16,535,028 16,620,179 0.5% 29,656,350 30,679,910 3.4%   Grimsby Power Incorporated 2,874,146 3,318,208 14.4% 3,539,179 3,509,087 -0.9% 6,413,324 6,827,296 6.3%   Guelph Hydro Electric Systems Inc. 14,875,578 14,197,517 -4.7% 19,106,176 19,778,231 3.5% 33,981,754 33,975,748 0.0%   Halton Hills Hydro Inc. 5,780,049
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Fort Frances Power Corporation 1,575,629 1,693,058 7.2% 885,390 882,485 -0.3% 2,461,019 2,575,543 4.5%   Greater Sudbury Hydro Inc. 13,121,322 14,059,731 6.9% 16,535,028 16,620,179 0.5% 29,656,350 30,679,910 3.4%   Grimsby Power Incorporated 2,874,146 3,318,208 14.4% 3,539,179 3,509,087 -0.9% 6,413,324 6,827,296 6.3%   Guelph Hydro Electric Systems Inc. 14,875,578 14,197,517 -4.7% 19,106,176 19,778,231 3.5% 33,981,754 33,975,748 0.0%   Halton Hills Hydro Inc. 5,780,049 6,128,245 5.8% 10,542,343 10,900,409 3.3% 16,322,392 17,028,654 4.2%   Hearst Power Distribution Company Limited 1,218,971 1,052,201 -14.7% 345,673 343,900 -0.5% 13,48,00.442 134,998,658 0.1%
Greater Sudbury Hydro Inc. 13,121,322 14,059,731 6.9% 16,535,028 16,620,179 0.5% 29,656,350 30,679,910 3.4%   Grimsby Power Incorporated 2,874,146 3,318,208 14.4% 3,539,179 3,509,087 -0.9% 6,413,324 6,827,296 6.3%   Guelph Hydro Electric Systems Inc. 14,875,578 14,197,517 -4.7% 19,106,176 19,778,231 3.5% 33,981,754 33,957,748 0.0%   Halton Hills Hydro Inc. 5,780,049 6,128,245 5.8% 10,542,343 10,900,409 3.3% 16,322,392 17,028,654 4.2%   Hearst Power Distribution Company Limited 1,218,971 1,052,201 -14.7% 345,673 343,900 -0.5% 13,48,00 -11.4%   Horizon Utilities Corporation 61,775,706 60,084,979 -2.8% 73,044,736 74,913,679 2.5% 134,890,442 134,998,658 0.1%
Grimsby Power Incorporated 2,874,146 3,318,208 14.4% 3,539,179 3,509,087 -0.9% 6,413,324 6,827,296 6,807,296 6,007   Guelph Hydro Electric Systems Inc. 14,875,578 14,197,517 -4.7% 19,106,176 19,778,231 3.5% 33,981,754 33,975,748 0.0%   Halton Hills Hydro Inc. 5,780,049 6,128,245 5.8% 10,542,343 10,900,409 3.3% 16,322,392 17,028,654 4.2%   Hearst Power Distribution Company Limited 1,218,971 1,052,201 -14.7% 345,673 343,900 -0.5% 1,356,645 1,396,100 -11.4%   Horizon Utilities Corporation 61.775,706 60,084,979 -2.8% 73,044,736 74,913,679 2.5% 134,890,442 134,998,658 0.1%
Guelph Hydro Electric Systems Inc.   14,875,578   14,197,517   -4.7%   19,106,176   19,778,231   3.5%   33,981,754   33,975,748   0.0%     Halton Hills Hydro Inc.   5,780,049   6,128,245   5.8%   10,502,343   10,900,409   3.3%   16,322,392   17,028,6554   4.2%     Hearst Power Distribution Company Limited   1,218,971   1,052,201   -14.7%   345,673   343,900   -0.5%   1,356,645   1,396,100   -11.4%     Horizon Utilities Corporation   61.775,706   60,084,979   -2.8%   73,044,736   74,913,679   2.5%   134,890.442   134,998,658   0.1%
Halton Hills Hydro Inc.   5,780,049   6,128,245   5.8%   10,542,343   10,900,409   3.3%   16,322,392   17,028,654   4.2%     Hearst Power Distribution Company Limited   1,218,971   1,052,201   -14.7%   345,673   343,900   -0.5%   1,256,645   1,396,100   -11.4%     Horizon Utilities Corporation   61,775,706   60,084,979   -2.8%   73,044,736   74,913,679   2.5%   134,820,442   134,998,658   0.1%
Hearst Power Distribution Company Limited 1,218,971 1,052,201 -14.7% 345,673 343,900 -0.5% 1,564,645 1,396,100 -11.4% Horizon Utilities Corporation 61.775.706 60.084.979 -2.8% 73.044,736 74.913,679 2.5% 134.820.442 134.998,658 0.1%
Horizon Utilities Corporation 61.775.706 60.084.979 -2.8% 73.044.736 74.913.679 2.5% 134.820.442 134.998.658 0.1%
Hydro 2000 Inc 517 394 514 942 -0.5% 149 840 143 367 -4.4% 667 233 658 309 -1.3%
Hydro Hawkesbury Inc. 8494.852 956.643 6.7% 541.313 540.251 -0.2% 1.436.164 1.496.894 4.1%
Hydro One Bramoton Networks Inc. 26.810.797 30.304.364 12.2% 70.423.423 70.239.505 -0.3% 97.234.221 100.543.869 3.3%
Hydro One Networks Inc. (including Amalgamations) 540.811.936 544.519.280 0.7% 706.792.807 746.574.682 5.5% 1.247.604.743 1.291.093.963 3.4%
Hydro Ottawa Limited 76.651.196 77.473.478 1.1% 135.941.262 140.080.494 3.0% 212.592.457 217.553.973 2.3%
10 Power 5,396,319 5,712,209 5,7% 8,869,333 9,158,598 3,2% 14,265,653 14,870,807 4,2%
Kenora Hydro Electric Corporation Ltd. 2.227.470 1.999.114 -10.8% 1.211.508 1.218.669 0.6% 3.438.978 3.217.783 -6.6%
Kingston Hydro Corporation 6,534,223 6,596,789 1.0% 7,809,654 8,039,973 2.9% 14,343,877 14,636,762 2.0%
Kitchener-Wilmot Hydro Inc. 14.237.678 15.268.932 7.0% 30.164.841 31.222.939 3.4% 44.402.520 46.491.871 4.6%
Lakefront Utilities Inc. 2,180.798 2,257.872 3,5% 2,340,228 2,552.740 8,7% 4,521.027 4,810.613 6,2%
Lakeland Power Distribution Ltd. 5,369,253 5,084,703 -5,4% 4,725,380 4,753,719 0,6% 10,094,634 9,838,422 -2,6%
London Hydro Inc. 33,285,766 34,906,074 4,8% 44,523,701 46,090,158 3,5% 77,809,466 80,996,232 4,0%
Midland Power Utility Corporation 2.390.722 2.508.991 4.8% 2.439.700 2.397.279 -1.8% 4.830.423 4.906.270 1.6%
Milton Hydro Distribution Inc. 9.832.673 9.598.087 -2.4% 16.658.228 17.028.083 2.2% 26.490.901 26.626.170 0.5%
Newmarket-Tay Power Distribution Ltd. 7,157,789 7,692,179 7.2% 13,192,043 13,591,281 3.0% 20,349,832 21,283,460 4.5%
Niagara Peninsula Energy Inc. 16,150,052 16,422,965 1.7% 23,134,791 23,616,489 2.1% 39,284,843 40,039,453 1.9%

### Total Cost by Distributor: 2015 vs. 2016

		OM&A Cost		Capital Cost		Total Cost			
			Percent		Percent		t		Percent
	2015	2016	Change	2015	2016	Change	2015	2016	Change
Niagara-On-The-Lake Hydro Inc.	2,227,069	2,393,371	7.2%	4,135,356	4,225,981	2.2%	6,362,425	6,619,352	4.0%
North Bay Hydro Distribution Limited	6,012,467	5,606,317	-7.0%	10,173,641	10,254,445	0.8%	16,186,108	15,860,761	-2.0%
Northern Ontario Wires Inc.	2,293,522	2,473,362	7.5%	1,397,137	1,400,453	0.2%	3,690,659	3,873,815	4.8%
Oakville Hydro Electricity Distribution Inc.	17,379,030	17,048,727	-1.9%	31,963,823	32,520,059	1.7%	49,342,853	49,568,785	0.5%
Orangeville Hydro Limited	3,280,264	3,309,331	0.9%	3,567,774	3,594,758	0.8%	6,848,039	6,904,089	0.8%
Orillia Power Distribution Corporation	4,427,205	4,682,094	5.6%	3,832,291	4,241,541	10.1%	8,259,496	8,923,635	7.7%
Oshawa PUC Networks Inc.	11,377,239	11,720,225	3.0%	19,136,503	19,282,760	0.8%	30,513,742	31,002,985	1.6%
Ottawa River Power Corporation	2,770,875	2,904,015	4.7%	2,440,395	2,445,277	0.2%	5,211,270	5,349,293	2.6%
Peterborough Distribution Incorporated	7,951,782	8,836,492	10.5%	13,322,415	13,263,149	-0.4%	21,274,198	22,099,641	3.8%
Powerstream Inc.	87,218,390	86,719,085	-0.6%	172,054,363	176,804,357	2.7%	259,272,753	263,523,442	1.6%
PUC Distribution Inc.	10,829,422	10,775,065	-0.5%	12,514,935	12,491,266	-0.2%	23,344,357	23,266,331	-0.3%
Renfrew Hydro Inc.	1,313,914	1,393,601	5.9%	1,180,431	1,167,223	-1.1%	2,494,345	2,560,823	2.6%
Rideau St. Lawrence Distribution Inc.	2,100,784	2,086,630	-0.7%	1,107,872	1,103,052	-0.4%	3,208,656	3,189,682	-0.6%
Sioux Lookout Hydro Inc.	1,399,313	1,510,500	7.6%	875,854	866,725	-1.0%	2,275,167	2,377,225	4.4%
St. Thomas Energy Inc.	3,793,637	4,219,822	10.6%	4,962,107	4,984,008	0.4%	8,755,744	9,203,830	5.0%
Thunder Bay Hydro Electricity Distribution Inc.	13,874,655	15,166,729	8.9%	18,243,153	18,624,924	2.1%	32,117,808	33,791,653	5.1%
Tillsonburg Hydro Inc.	2,468,045	2,676,347	8.1%	2,105,998	2,088,991	-0.8%	4,574,042	4,765,338	4.1%
Toronto Hydro-Electric System Limited	228,941,345	232,383,928	1.5%	529,658,269	563,376,872	6.2%	758,599,613	795,760,801	4.8%
Veridian Connections Inc.	25,547,095	26,930,114	5.3%	42,801,102	44,010,320	2.8%	68,348,197	70,940,433	3.7%
Wasaga Distribution Inc.	2,804,267	2,992,341	6.5%	2,726,146	2,745,754	0.7%	5,530,413	5,738,095	3.7%
Waterloo North Hydro Inc.	12,148,950	12,139,696	-0.1%	30,096,101	33,343,836	10.2%	42,245,051	45,483,532	7.4%
Welland Hydro-Electric System Corp.	6,172,834	6,568,599	6.2%	5,007,650	5,080,091	1.4%	11,180,484	11,648,691	4.1%
Wellington North Power Inc.	1,644,603	1,732,025	5.2%	1,301,376	1,401,666	7.4%	2,945,979	3,133,691	6.2%
West Coast Huron Energy Inc.	1,721,457	1,782,044	3.5%	1,404,851	1,465,562	4.2%	3,126,308	3,247,606	3.8%
Westario Power Inc.	5,196,668	5,716,495	9.5%	7,430,581	7,670,137	3.2%	12,627,249	13,386,631	5.8%
Whitby Hydro Electric Corporation	11,079,403	11,510,497	3.8%	17,161,497	17,564,056	2.3%	28,240,900	29,074,553	2.9%
Average			3.23%			1.85%			2.52%
Median			3.74%			1.95%			3.31%

#### Table 3 (A)

# Summary of Cost Performance Results

	Cost Performance						
	2013	2014	2015	2016	2013-2015	2014-2016*	Difference from 2013- 2015
Algoma Power Inc.	71.2%	68.1%	70.6%	69.8%	70.0%	69.5%	-0.5%
Atikokan Hydro Inc.	11.6%	-4.9%	9.7%	11.9%	5.5%	5.6%	0.1%
Bluewater Power Distribution Corporation	5.9%	0.3%	0.8%	2.1%	2.3%	1.1%	-1.3%
Brantford Power Inc.	0.7%	-3.6%	-6.1%	-4.4%	-3.0%	-4.7%	-1.7%
Burlington Hydro Inc.	-7.5%	-9.4%	-10.3%	-11.1%	-9.0%	-10.3%	-1.2%
Energy Plus	1.4%	-2.2%	-5.3%	-9.9%	-2.1%	-5.8%	-3.8%
Canadian Niagara Power Inc.	13.8%	12.9%	13.0%	13.5%	13.2%	13.1%	-0.1%
Centre Wellington Hydro Ltd.	0.4%	-3.1%	-1.2%	0.4%	-1.3%	-1.3%	0.0%
Chapleau Public Utilities Corporation	20.5%	27.7%	23.9%	21.0%	24.0%	24.2%	0.2%
Collus PowerStream Corp.	-12.3%	-14.2%	-14.2%	-13.2%	-13.6%	-13.9%	-0.3%
Cooperative Hydro Embrun Inc.	-18.9%	-29.7%	-33.2%	-38.2%	-27.3%	-33.7%	-6.4%
E.L.K. Energy Inc.	-33.2%	-44.9%	-34.7%	-39.4%	-37.6%	-39.7%	-2.1%
Enersource Hydro Mississauga Inc.	-10.7%	-13.9%	-8.2%	-6.8%	-11.0%	-9.7%	1.3%
Entegrus Powerlines Inc.	-12.5%	-16.7%	-17.3%	-15.7%	-15.5%	-16.6%	-1.1%
Enwin Utilities Ltd.	10.3%	10.9%	9.9%	9.6%	10.3%	10.1%	-0.2%
Erie Thames Powerlines Corporation	7.9%	7.0%	7.0%	6.8%	7.3%	6.9%	-0.4%
Espanola Regional Hydro Distribution Corporation	-19.3%	-25.4%	-20.4%	-20.9%	-21.7%	-22.2%	-0.5%
Essex Powerlines Corporation	-17.2%	-12.7%	-13.5%	-14.3%	-14.5%	-13.5%	1.0%
Festival Hydro Inc.	19.6%	16.6%	14.0%	13.4%	16.8%	14.7%	-2.1%
Fort Frances Power Corporation	6.4%	5.6%	5.1%	6.8%	5.7%	5.8%	0.2%
Greater Sudbury Hydro Inc.	4.8%	14.9%	8.0%	9.6%	9.3%	10.9%	1.6%
Grimsby Power Incorporated	-16.9%	-17.3%	-17.0%	-13.0%	-17.0%	-15.7%	1.3%
Guelph Hydro Electric Systems Inc.	0.8%	-4.8%	-3.8%	-5.1%	-2.6%	-4.6%	-2.0%
Halton Hills Hydro Inc.	-35.7%	-31.3%	-28.2%	-27.5%	-31.7%	-29.0%	2.7%
Hearst Power Distribution Company Limited	-33.1%	-22.4%	-7.4%	-21.3%	-21.0%	-17.0%	3.9%
Horizon Utilities Corporation	-5.5%	-5.3%	-2.1%	-3.9%	-4.3%	-3.8%	0.5%
Hydro 2000 Inc.	-1.0%	-15.3%	-6.2%	-19.6%	-7.5%	-13.7%	-6.2%
Hydro Hawkesbury Inc.	-51.1%	-64.3%	-68.1%	-66.4%	-61.2%	-66.3%	-5.1%
Hydro One Brampton Networks Inc.	-5.7%	-3.3%	-2.9%	-2.9%	-4.0%	-3.0%	0.9%

#### Table 3 (A)

# Summary of Cost Performance Results

	Cost Performance						
	2013	2014	2015	2016	2013-2015	2014-2016*	Difference from 2013- 2015
Hydro One Networks Inc. (including Amalgamations)	26.5%	28.9%	19.7%	15.6%	25.0%	21.4%	-3.7%
Hydro Ottawa Limited	8.5%	12.7%	15.2%	15.7%	12.1%	14.5%	2.4%
InnPower	-2.8%	-2.8%	8.5%	9.1%	1.0%	4.9%	3.9%
Kenora Hydro Electric Corporation Ltd.	-11.2%	-11.0%	-3.9%	-12.5%	-8.7%	-9.1%	-0.4%
Kingston Hydro Corporation	3.7%	-3.6%	-3.1%	-2.9%	-1.0%	-3.2%	-2.2%
Kitchener-Wilmot Hydro Inc.	-19.3%	-19.0%	-22.3%	-20.4%	-20.2%	-20.6%	-0.3%
Lakefront Utilities Inc.	-7.4%	-16.0%	-22.1%	-18.8%	-15.2%	-19.0%	-3.8%
Lakeland Power Distribution Ltd.	-0.9%	-1.9%	-7.6%	-11.6%	-3.5%	-7.0%	-3.6%
London Hydro Inc.	-11.0%	-12.8%	-9.9%	-8.0%	-11.3%	-10.3%	1.0%
Midland Power Utility Corporation	18.6%	15.2%	13.8%	11.8%	15.9%	13.6%	-2.3%
Milton Hydro Distribution Inc.	-4.5%	-4.0%	2.7%	-0.6%	-1.9%	-0.6%	1.3%
Newmarket-Tay Power Distribution Ltd.	-19.5%	-18.6%	-19.3%	-16.7%	-19.1%	-18.2%	0.9%
Niagara Peninsula Energy Inc.	1.1%	7.7%	4.5%	3.5%	4.5%	5.3%	0.8%
Niagara-On-The-Lake Hydro Inc.	-0.7%	-2.8%	-6.6%	-6.4%	-3.4%	-5.3%	-1.9%
North Bay Hydro Distribution Limited	5.4%	8.2%	7.0%	3.2%	6.9%	6.2%	-0.7%
Northern Ontario Wires Inc.	-21.5%	-32.6%	-42.2%	-38.5%	-32.1%	-37.8%	-5.7%
Oakville Hydro Electricity Distribution Inc.	13.8%	8.7%	6.9%	4.5%	9.8%	6.7%	-3.1%
Orangeville Hydro Limited	0.1%	-4.0%	-7.6%	-10.2%	-3.8%	-7.3%	-3.5%
Orillia Power Distribution Corporation	-4.7%	-5.3%	-8.0%	-2.5%	-6.0%	-5.3%	0.7%
Oshawa PUC Networks Inc.	-17.4%	-18.1%	-14.9%	-15.4%	-16.8%	-16.2%	0.6%
Ottawa River Power Corporation	4.3%	-6.9%	-9.3%	-9.8%	-4.0%	-8.7%	-4.7%
Peterborough Distribution Incorporated	14.5%	14.5%	11.0%	12.6%	13.3%	12.7%	-0.6%
Powerstream Inc.	3.0%	5.6%	8.1%	8.2%	5.6%	7.3%	1.7%
PUC Distribution Inc.	22.7%	14.6%	16.2%	14.0%	17.8%	14.9%	-2.9%
Renfrew Hydro Inc.	15.7%	10.4%	10.6%	10.6%	12.2%	10.5%	-1.7%
Rideau St. Lawrence Distribution Inc.	-7.2%	-8.1%	-4.8%	-8.1%	-6.7%	-7.0%	-0.3%
Sioux Lookout Hydro Inc.	2.9%	6.2%	-4.3%	-3.4%	1.6%	-0.5%	-2.1%
St. Thomas Energy Inc.	-0.3%	-6.3%	-10.3%	-7.7%	-5.6%	-8.1%	-2.5%
Thunder Bay Hydro Electricity Distribution Inc.	8.2%	7.4%	8.6%	12.2%	8.1%	9.4%	1.3%

#### Table 3 (A)

# Summary of Cost Performance Results

	Cost Performance						
	2013	2014	2015	2016	2013-2015	2014-2016*	Difference from 2013- 2015
Tillsonburg Hydro Inc.	19.5%	4.4%	-0.5%	1.6%	7.8%	1.8%	-6.0%
Toronto Hydro-Electric System Limited	48.4%	49.9%	51.5%	52.3%	49.9%	51.2%	1.3%
Veridian Connections Inc.	-4.5%	-3.0%	-2.7%	-1.6%	-3.4%	-2.4%	1.0%
Wasaga Distribution Inc.	-41.6%	-41.6%	-45.6%	-44.9%	-42.9%	-44.0%	-1.1%
Waterloo North Hydro Inc.	10.6%	11.0%	8.2%	12.9%	9.9%	10.7%	0.8%
Welland Hydro-Electric System Corp.	-15.2%	-17.3%	-18.7%	-17.4%	-17.0%	-17.8%	-0.7%
Wellington North Power Inc.	17.7%	14.2%	11.8%	16.2%	14.6%	14.1%	-0.5%
West Coast Huron Energy Inc.	41.4%	32.8%	33.5%	34.9%	35.9%	33.7%	-2.2%
Westario Power Inc.	2.2%	-4.2%	-6.0%	-2.7%	-2.6%	-4.3%	-1.6%
Whitby Hydro Electric Corporation	-5.7%	-6.8%	-2.6%	-1.9%	-5.0%	-3.8%	1.3%
Average	-0.18%	-2.57%	-2.53%	-2.82%	-1.76%	-2.64%	-0.88%

\* The 2010-2012 average performance for the current group of 68 companies is -1.39%.

#### Table 3 (B)

# Summary of the Impact of Revisions on Cost Performance Results

	202	15 Cost Perform	ance	2013-2015 Average Cost Performance			
	As Previously Calculated	As Revised	Difference	As Previously Calculated	As Revised	Difference	
Centre Wellington Hydro Ltd.	-1.2%	-1.2%	0.000%	-1.3%	-1.3%	0.000%	
Essex Powerlines Corporation	-13.5%	-13.5%	0.018%	-14.5%	-14.5%	0.006%	
Fort Frances Power Corporation	5.1%	5.1%	0.000%	5.7%	5.7%	0.000%	
Hearst Power Distribution Company Limited	-7.4%	-7.8%	-0.380%	-21.0%	-21.1%	-0.127%	
Horizon Utilities Corporation	-2.1%	-2.1%	0.000%	-4.3%	-4.3%	0.000%	
Hydro One Networks Inc.*	21.2%	22.0%	0.714%	na	na	na	
Lakeland Power Distribution Ltd.	-7.6%	-7.6%	0.000%	-3.5%	-3.5%	0.000%	
Newmarket-Tay Power Distribution Ltd.	-19.3%	-19.3%	0.000%	-19.1%	-19.1%	0.000%	
Powerstream Inc.	8.1%	9.2%	1.073%	5.6%	5.9%	0.358%	
Thunder Bay Hydro Electricity Distribution Inc.	8.6%	8.6%	0.000%	8.1%	8.1%	0.000%	

\* Not available. Calculation of the impact of revisions for previous years was complicated by amalgamations and was not done.

## Summary of Stretch Factor Assignments

	2013-2015		2014-	Change in	
	Benchmarking Performance	Stretch Factor	Benchmarking Performance	Stretch Factor	Stretch Factor
Algoma Power Inc.	70.0%	0.60	69.5%	0.60	NO
Atikokan Hydro Inc.	5.5%	0.30	5.6%	0.30	NO
Bluewater Power Distribution Corporation	2.3%	0.30	1.1%	0.30	NO
Brantford Power Inc.	-3.0%	0.30	-4.7%	0.30	NO
Burlington Hydro Inc.	-9.0%	0.30	-10.3%	0.15	YES
Energy Plus	na	na	-5.8%	0.30	YES
Canadian Niagara Power Inc.	13.2%	0.45	13.1%	0.45	NO
Centre Wellington Hydro Ltd.	-1.3%	0.30	-1.3%	0.30	NO
Chapleau Public Utilities Corporation	24.0%	0.45	24.2%	0.45	NO
Collus PowerStream Corp.	-13.6%	0.15	-13.9%	0.15	NO
Cooperative Hydro Embrun Inc.	-27.3%	0.00	-33.7%	0.00	NO
E.L.K. Energy Inc.	-37.6%	0.00	-39.7%	0.00	NO
Enersource Hydro Mississauga Inc.	-11.0%	0.15	-9.7%	0.30	YES
Entegrus Powerlines Inc.	-15.5%	0.15	-16.6%	0.15	NO
Enwin Utilities Ltd.	10.3%	0.45	10.1%	0.45	NO
Erie Thames Powerlines Corporation	7.3%	0.30	6.9%	0.30	NO
Espanola Regional Hydro Distribution Corporation	-21.7%	0.15	-22.2%	0.15	NO
Essex Powerlines Corporation	-14.5%	0.15	-13.5%	0.15	NO
Festival Hydro Inc.	16.8%	0.45	14.7%	0.45	NO
Fort Frances Power Corporation	5.7%	0.30	5.8%	0.30	NO
Greater Sudbury Hydro Inc.	9.3%	0.30	10.9%	0.45	YES
Grimsby Power Incorporated	-17.0%	0.15	-15.7%	0.15	NO
Guelph Hydro Electric Systems Inc.	-2.6%	0.30	-4.6%	0.30	NO
Halton Hills Hydro Inc.	-31.7%	0.00	-29.0%	0.00	NO
Hearst Power Distribution Company Limited	-21.0%	0.15	-17.0%	0.15	NO
Horizon Utilities Corporation	-4.3%	0.30	-3.8%	0.30	NO
Hydro 2000 Inc.	-7.5%	0.30	-13.7%	0.15	YES
Hydro Hawkesbury Inc.	-61.2%	0.00	-66.3%	0.00	NO
Hydro One Brampton Networks Inc.	-4.0%	0.30	-3.0%	0.30	NO
Hydro One Networks Inc. (including Amalgamations)	25.0%	0.60	21.4%	0.45	YES
Hydro Ottawa Limited	12.1%	0.45	14.5%	0.45	NO
InnPower	1.0%	0.30	4.9%	0.30	NO
Kenora Hydro Electric Corporation Ltd.	-8.7%	0.30	-9.1%	0.30	NO
Kingston Hydro Corporation	-1.0%	0.30	-3.2%	0.30	NO
Kitchener-Wilmot Hydro Inc.	-20.2%	0.15	-20.6%	0.15	NO
Lakefront Utilities Inc.	-15.2%	0.15	-19.0%	0.15	NO
Lakeland Power Distribution Ltd.	-3.5%	0.30	-7.0%	0.30	NO
London Hydro Inc.	-11.3%	0.15	-10.3%	0.15	NO
Midland Power Utility Corporation	15.9%	0.45	13.6%	0.45	NO

## Summary of Stretch Factor Assignments

	2013-2015		2014-	Change in	
	Benchmarking Performance	Stretch Factor	Benchmarking Performance	Stretch Factor	Stretch Factor
Milton Hydro Distribution Inc.	-1.9%	0.30	-0.6%	0.30	NO
Newmarket-Tay Power Distribution Ltd.	-19.1%	0.15	-18.2%	0.15	NO
Niagara Peninsula Energy Inc.	4.5%	0.30	5.3%	0.30	NO
Niagara-On-The-Lake Hydro Inc.	-3.4%	0.30	-5.3%	0.30	NO
North Bay Hydro Distribution Limited	6.9%	0.30	6.2%	0.30	NO
Northern Ontario Wires Inc.	-32.1%	0.00	-37.8%	0.00	NO
Oakville Hydro Electricity Distribution Inc.	9.8%	0.30	6.7%	0.30	NO
Orangeville Hydro Limited	-3.8%	0.30	-7.3%	0.30	NO
Orillia Power Distribution Corporation	-6.0%	0.30	-5.3%	0.30	NO
Oshawa PUC Networks Inc.	-16.8%	0.15	-16.2%	0.15	NO
Ottawa River Power Corporation	-4.0%	0.30	-8.7%	0.30	NO
Peterborough Distribution Incorporated	13.3%	0.45	12.7%	0.45	NO
Powerstream Inc.	5.6%	0.30	7.3%	0.30	NO
PUC Distribution Inc.	17.8%	0.45	14.9%	0.45	NO
Renfrew Hydro Inc.	12.2%	0.45	10.5%	0.45	NO
Rideau St. Lawrence Distribution Inc.	-6.7%	0.30	-7.0%	0.30	NO
Sioux Lookout Hydro Inc.	1.6%	0.30	-0.5%	0.30	NO
St. Thomas Energy Inc.	-5.6%	0.30	-8.1%	0.30	NO
Thunder Bay Hydro Electricity Distribution Inc.	8.1%	0.30	9.4%	0.30	NO
Tillsonburg Hydro Inc.	7.8%	0.30	1.8%	0.30	NO
Toronto Hydro-Electric System Limited	49.9%	0.60	51.2%	0.60	NO
Veridian Connections Inc.	-3.4%	0.30	-2.4%	0.30	NO
Wasaga Distribution Inc.	-42.9%	0.00	-44.0%	0.00	NO
Waterloo North Hydro Inc.	9.9%	0.30	10.7%	0.45	YES
Welland Hydro-Electric System Corp.	-17.0%	0.15	-17.8%	0.15	NO
Wellington North Power Inc.	14.6%	0.45	14.1%	0.45	NO
West Coast Huron Energy Inc.	35.9%	0.60	33.7%	0.60	NO
Westario Power Inc.	-2.6%	0.30	-4.3%	0.30	NO
Whitby Hydro Electric Corporation	-5.0%	0.30	-3.8%	0.30	NO

### Stretch Factor Assignments by Group

Group I	Group II	Gro	oup III	Group IV	Group V
Stretch Factor = 0%	Stretch Factor = 0.15%	Stretch Fa	octor = 0.30%	Stretch Factor = 0.45%	Stretch Factor = 0.60%
Cooperative Hydro Embrun Inc.	Burlington Hydro Inc.	Atikokan Hydro Inc.	Niagara Peninsula Energy Inc.	Canadian Niagara Power	Algoma Power Inc.
E.L.K. Energy Inc.	Collus PowerStream Corp.	Bluewater Power Distribution Corporation	Niagara-On-The-Lake Hydro Inc.	Chapleau Public Utilities Corporation	Toronto Hydro-Electric System Limited
Halton Hills Hydro Inc.	Entegrus Powerlines Inc.	Brantford Power Inc.	North Bay Hydro Distribution Limited	Enwin Utilities Ltd.	West Coast Huron Energy Inc.
Hydro Hawkesbury Inc.	Espanola Regional Hydro Distribution Corporation	Centre Wellington Hydro Ltd.	Oakville Hydro Electricity Distribution Inc.	Festival Hydro Inc.	
Northern Ontario Wires Inc.	Essex Powerlines Corporation	Energy Plus	Orangeville Hydro Limited	Greater Sudbury Hydro Inc.	
Wasaga Distribution Inc.	Grimsby Power Incorporated	Enersource Hydro Mississauga Inc.	Orillia Power Distribution Corporation	Hydro One Networks Inc.	
	Hearst Power Distribution Company Limited	Erie Thames Powerlines Corporation	Ottawa River Power Corporation	Hydro Ottawa Limited	
	Hydro 2000 Inc.	Fort Frances Power Corporation	Powerstream Inc.	Midland Power Utility Corporation	
	Kitchener-Wilmot Hydro Inc.	Guelph Hydro Electric Systems Inc.	Rideau St. Lawrence Distribution Inc.	Peterborough Distribution Incorporated	
	Lakefront Utilities Inc.	Horizon Utilities Corporation	Sioux Lookout Hydro Inc.	PUC Distribution Inc.	
	London Hydro Inc.	Hydro One Brampton Networks Inc.	St. Thomas Energy Inc.	Renfrew Hydro Inc.	
	Newmarket-Tay Power Distribution Ltd.	InnPower	Thunder Bay Hydro Electricity Distribution Inc.	Waterloo North Hydro Inc.	
	Oshawa PUC Networks Inc.	Kenora Hydro Electric Corporation Ltd.	Tillsonburg Hydro Inc.	Wellington North Power Inc.	
	Welland Hydro-Electric System Corp.	Kingston Hydro Corporation	Veridian Connections Inc.		
		Lakeland Power Distribution Ltd.	Westario Power Inc.		
		Milton Hydro Distribution Inc.	Whitby Hydro Electric Corporation		